

WHAT IS CLAIMED IS:

1. A method of sequencing the image data inside the memory unit of an optical scanning device, wherein the method is particularly suitable for scanning a line containing a plurality of pixels, wherein each pixel comprises a plurality of primary or secondary colors, the image data sequencing method comprising the steps of:

scanning a line to obtain all the pixel data for one of the primary or secondary colors;

dividing the scanned data into a first group containing all the odd-numbered pixel data and a second group containing all the even-numbered pixel data;

sending the first group of pixel data or the second group of pixel data to the memory unit and reserving a storage space both in front of and behind the retrieved primary or secondary color address space so that all the primary or secondary color data constituting a pixel can be arranged in a fixed sequence next to each other inside the memory unit; and

submitting the pixel data of the primary or secondary colors after a full set of the primary or secondary colors belonging either to the first group or the second group is accumulated inside the memory unit, wherein the primary colors include red, green and blue; and wherein the secondary colors include magenta, yellow and cyan.

2. A method of sequencing data inside the memory unit of an optical scanning device, comprising the steps of:

dividing the data obtained by scanning a line of pixels into groups and sending the data to the memory unit; and

sending out all the pixel data belonging to a group after the memory unit has accumulated all the pixel data of the group and the data of all primary or secondary colors

constituting each pixel arranged in a fixed sequence inside the memory unit.

3. The sequencing method of claim 2, wherein the step of dividing the scanned data into groups includes the sub-steps of:

gathering all the odd-numbered pixel data together to form a group; and

5 gathering all the even-numbered pixel data together to form another group.

4. The sequencing method of claim 2, wherein the primary colors include red, green and blue and wherein the secondary colors include magenta, yellow and cyan.

5. The sequencing method of claim 2, wherein the step of storing a group of data inside the memory unit further includes the sub-steps of:

10 securing all the pixel data of one primary or secondary color; and

reserving a storage space both before and after the secured primary or secondary color data address space so that all the primary or secondary colors constituting a pixel are in a fixed sequence next to each other within the memory unit.

6. A method of sequencing the image data inside the memory unit of an optical scanning device, wherein the method is particularly suitable for scanning a line of pixels with each pixel comprising a plurality of primary or secondary colors, the image data sequencing method comprising the steps of:

securing all the pixel data from the scan line belonging to one primary or secondary color;

20 dividing the pixels of the scanned line into groups;

reserving a storage space both before and after the address space for holding the secured primary or secondary color data so that all the primary or secondary colors constituting a pixel are in a fixed sequence next to each other within the memory unit; and

sending out the pixel data of the primary or secondary colors after a full set of the

primary or secondary colors belonging to one of the groups is accumulated inside the memory unit.

7. The sequencing method of claim 6, wherein the step of dividing the scanned data into groups includes the sub-steps of:

- 5 gathering all the odd-numbered pixel data together to form a group; and
 gathering all the even-numbered pixel data together to form another group.

8. The sequencing method of claim 6, wherein the primary colors include red, green and blue and wherein the secondary colors include magenta, yellow and cyan.